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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,560	08/25/2003	Scott M. Henneberry	6270/098 (PM03-1373)	3229
46261 7590 12/14/2007 BRINKS HOFER GILSON & LIONE/PML INDIANAPOLIS OFFICE 1 INDIANA SQ SUITE 1600 INDIANAPOLIS, IN 46204-2033			EXAMINER TRAN, ELLEN C	
			ART UNIT 2134	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/647,560

Applicant(s)

HENNEBERRY ET AL.

Examiner

Ellen C. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

Ellen Tran  
Patent Examiner  
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### ***DETAILED ACTION***

1. This action is responsive to communication filed on: 25 September 2007 with acknowledgement of an original application filed on 25 August 2003, having the benefit of provisional application 60/406,854 filed 29 August 2002, and provision applications 60/459,182, 60/459,152 filed 31 March 2003.
2. Claims 1-45 are pending; claims 1, 22, 30, 37, and 42, are independent claims. Claims 22, 28-30, and 42 have been amended. Claims 43-45 are new. Amendment to the claims and specification is accepted.

### ***Response to Arguments***

3. The arguments submitted on 25 September 2007 have been fully considered however they are moot due to the new grounds of rejection below.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-6, 8, 9, 15, 16, 22, 25, 27-31, 33, 35-37, 40, and 42-45,** are rejected under 35 U.S.C. 102(b) as being anticipated by Lightbody et al. U.S. Patent No. 6,000,034 (hereinafter '034).

**As to independent claim 1, “An intelligent electronic device for monitoring electrical parameters in an electrical circuit, the intelligent electronic device comprising: a sensor configured to be coupled with the electrical circuit and sense at least one of current and voltage in the electrical circuit”** is taught in ‘034 col. 5, lines 11-32;

**“the sensor also configured to generate a signal indicative of the at least one of current and voltage; a processor coupled with the sensor, wherein the processor is configured to generate a measurement signal indicative of the at least one of current and voltage in response to the signal”** is shown in ‘034 col. 6, lines 23-34;

**“the processor configured to concurrently provide a first intelligent electronic device functionality comprising a first security access and a second intelligent electronic device functionality comprising a second security access; wherein the first security access and the second security access are each configured to provide user access to at least one mutually exclusive function”** is disclosed in ‘034 col. 9, line 42 through col. 10, line 40 and col. 11, line 62 through col. 12, line 24.

**As to dependent claim 2, “wherein the first intelligent electronic device functionality and the second intelligent electronic device functionality each exclusively comprise at least one of a circuit breaker control functionality, a power quality functionality, a billing power monitoring functionality, a protective relay functionality, and a sequence of events recording functionality”** is taught in ‘034 col. 11, line 62 through col. 12, line 24.

**As to dependent claim 3, “wherein the first security access is enabled with a first user identification and the second security access is enabled with a second user identification”** is shown in ‘034 col. 11, line 62 through col. 12, line 24.

**As to dependent claim 4, “wherein at least one of the first user identification and the second user identification includes a permissive signal, the permissive signal indicative of when a predetermined condition is met” is disclosed in ‘034 col. 2, lines 43-67.**

**As to dependent claim 5, “wherein the predetermined condition comprises enablement of a safety lockout mechanism” is taught in ‘034 col. 3, lines 1-19, note the key is the lockout mechanism.**

**As to dependent claim 6, “wherein the predetermined condition comprises the status of a digital input to the intelligent electronic device” is shown in ‘034 col. 3, lines 1-19, note whether the key is in place determines the status of the input signal.**

**As to dependent claim 8, “further comprising an interface coupled with the processor” is disclosed in ‘034 col. 4, lines 28-36;**

**“wherein the processor is configured to provide an energy parameter to the interface as a function of the measurement signal” is taught in ‘034 col. 6, lines 49-65.**

**As to dependent 9, “wherein the interface is configured to receive a first user identification to enable the first security access and a second user identification to enable the second security access” is shown in ‘034 col. 7, lines 51-65.**

**As to dependent claim 15, “wherein the processor comprises a first processor and a second processor, the first processor configured to provide the first intelligent electronic device functionality and the second processor configured to concurrently provide the second intelligent electronic device functionality” is disclosed in ‘034 col. 2, lines 41-54.**

**As to dependent claim 16, “wherein the second processor is configured to function independent of the first processor” is taught in ‘034 col. 11, lines 63-66.**

**As to independent claim 22, “A method of secure access to an intelligent electronic device, the method comprising: providing an intelligent electronic device that includes a sensor interface configured to operably couple to a power system sensor, the intelligent electronic device configured to monitor an electrical parameter of an electrical circuit in a power system” is taught in ‘034 col. 5, lines 11-32;**

**“the intelligent electronic device prompting for entry of a user identification to access the functionalities of the intelligent electronic device; allowing access to a first intelligent electronic device functionality provided by the intelligent electronic device only as a function of entry of a first user identification; and allowing access to a second intelligent electronic device functionality provided by the intelligent electronic device only as a function of entry of a second user identification” is shown in ‘034 col. 11, line 62 through col. 12, line 24;**

**“wherein the first intelligent electronic device functionality and the second intelligent electronic device functionality both include independent functions” is disclosed in ‘034 col. 11, lines 63-66.**

**As to dependent claim 25, “wherein allowing access comprises receiving as one of the first user identification and the second user identification a security code and a permissive signal, wherein the permissive signal indicates that a predetermined condition has been met” is taught in ‘034 col. 2, lines 43-67.**

**As to dependent claim 27, “wherein allowing access comprises comparing the first user identification and the second user identification to a plurality of stored user identifications and enabling secure access to the respective first and second intelligent**

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**electronic device functionalities as a function of a match”** is shown in ‘034 col. 11, line 62 through col. 12, line 24.

**As to dependent claim 28, “wherein the intelligent electronic device prompting for entry of the user identification is in response to a request to access one of the first and second intelligent electronic device functionalities”** is shown in ‘034 col. 7, lines 51-65.

**As to dependent claim 29, “wherein the intelligent electronic device prompting for entry of the user identification comprises communication of a plurality of stored user identifications over a communication medium to the processor; the processor configured to compare the stored user identifications to the first and second user identification”** is shown in ‘034 col. 11, line 62 through col. 12, line 24.

**As to independent claim 30,** this claim is directed to an intelligent electronic device configured to perform the method of claim 22.

**As to dependent claim 31, “wherein the first and second security signals comprises a respective first and second user identification”** is shown in ‘034 col. 11, line 62 through col. 12, line 24.

**As to dependent claim 33, “wherein one of the first and second security signals comprises a security code and a permissive signal”** is taught in ‘034 col. 2, lines 58-67.

**As to dependent claim 35, “wherein at least one of the first and second security signals are transmitted over a communication medium”** is taught in ‘034 col. 7 lines 1-6.

**As to dependent claim 36, “further comprising a communication link coupled with the processor, wherein the processor is configured to request a plurality of stored security**

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**signals be communicated over the communication link to compare with the first and second security signals”** is taught in ‘034 col. 11, line 62 through col. 12, line 24.

**As to independent claim 37**, this claim is directed to an intelligent electronic device configured to monitor and store instructions performing the method of claim 22; therefore it is rejected along similar rationale.

**As to dependent claim 40**, “**wherein the processor comprises a microprocessor and a digital signal processor in cooperative operation**” is taught in ‘034 col. 6, lines 5-41.

**As to independent claim 42**, “**A method of securing access to an intelligent electronic device via a graphical user interface that includes a display and a selection device, the method comprising: retrieving from a memory of the intelligent electric device a security access entry for presentation on the display of the intelligent electronic device**” is shown in ‘034 col. 7, lines 51-65;

**“the intelligent electronic device configured to operable couple to an electric circuit”** is taught in ‘034 col. 5, lines 11-32;

**“displaying the security access entry on the display of the intelligent electronic device; receiving one of a plurality of security signals entered as a function of the selection device into the security access entry; in response to a first security signal, allowing access to a first intelligent electronic device functionality available within the intelligent electronic device”** is taught in ‘034 col. 10, line 65 through col. 11, line 25.

**“and in response to a second security signal, allowing access to a second intelligent electronic device functionality available within the intelligent electronic device, wherein each of the first and second electronic device functionalities include a mutually exclusive**



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**function”** is disclosed in ‘034 col. 9, line 42 through col. 10, line 40 and col. 11, line 62 through col. 12, line 24.

**As to dependent claim 43, “further comprising: receiving from a remote location a security access query; and the intelligent electronic device providing information to generate a remote display of the security access entry at the remote location”** is taught in ‘034 col. 14, lines 3-50.

**As to dependent claim 44, “further comprising: a sensor interface coupled to the sensor, wherein the sensor interface is configured to couple an external electrical sensor that is directly coupled to the electrical circuit”** is shown in ‘034 col. 14, lines 3-50.

**As to dependent claim 45, “wherein the power system sensor is internal to the intelligent electronic device”** is taught in ‘034 col. 2, lines 44-46.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 7, 10, 23, and 32**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lightbody et al. U.S. Patent No. 6,000,034 (hereinafter '034) in view of Loucks et al. U.S. Patent No. 5,650,936 (hereinafter '936).

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**As to dependent claim 7**, the following is not explicitly taught in '034: **“wherein the predetermined condition comprises a determined time period”** however '936 teaches that modules have an 'UpdatePeriod' to indicate the period at which the module updates the output registers in col. 30, lines 3-4.

It would have been obvious to one of ordinary skill in the art at the time of the invention a system for managing resource consumption with permissive signals taught in '034 to include a means to set conditions based on time, that is better explained in '936. One of ordinary skill in the art would have been motivated to perform such a modification as indicated by '034 the reference '936 is incorporated see '034 (col. 7, lines 13 et seq.) “In one embodiment, the revenue-class electricity meter 10 is operated using appropriate software, including programming and logic 190, to implement the desired functions, features, and operations. The software 190 may be implemented in alternative ways including various programming languages, scripts, and architectures, and combinations of software and firmware, etc. In one embodiment, the revenue-class electricity meter 10 operates internally and communicates on the network 72 using a modular and highly-configurable object-oriented programming architecture. One object-oriented programming approach is disclosed in patent application Ser. No. 08/369,849, now U.S. Pat. No. 5,650,936 entitled "Power Monitor Apparatus and Method with Object Oriented Structure", the disclosure of which is incorporated herein by reference”

**As to dependent claim 10**, **“wherein the first intelligent electronic device functionality and the second intelligent electronic device functionality are configured to**

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**share the interface**” however ‘936 teaches that the devices can be interconnected and control/monitored on col. 6, lines 17-31.

**As to dependent claim 23, “wherein the intelligent electronic device is operating the first and second intelligent electronic device functionalities in parallel”** however ‘936 teaches that the devices can be interconnected and control/monitored on col. 6, lines 17-31.

**As to dependent claim 32, “wherein the processor is configured to operate the first and second intelligent electronic device functionalities concurrently”** however ‘936 teaches that the devices can be interconnected and control/monitored on col. 6, lines 17-31.

8. **Claims 11-14, 26, and 34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lightbody et al. U.S. Patent No. 6,000,034 (hereinafter '034) in view of Flyntz U.S. Patent No. 6,351,817 (hereinafter '817).

**As to dependent claim 11, the following is note explicitly taught in ‘034: “wherein the interface comprises a biometric identification device coupled with the processor, wherein the biometric identification device is configured to identify a user as part of at least one of the first security access and the second security access”** however

It would have been obvious to one of ordinary skill in the art at the time of the invention a system for managing resource consumption with permissive signals taught in ‘034 to include a means to send utilize biometrics of user authentication. One of ordinary skill in the art would have been motivated to perform such a modification to protect access to different security levels see ‘817 (col. 1, lines 14 et seq.) “Prior art, multilevel computer systems include the separation of the elements that store or process data at each security level through user controlled means such as a mechanical switch or by physical removal of secure storage components such as the

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hard drives. The security of such computer systems is dependent on the user and not the user's assigned access privileges. It also leaves the data created, stored, or accessed by one user accessible to another unauthorized user. In addition, a switching mechanism that does not disable the operation of the storage and processing components that are not at the security level selected creates the potential for data transfer between security levels through a covert transmission channel. Such channels can only be disabled through the removal of power from components at security levels that are not in use thereby disabling the channel at the source”.

**As to dependent claim 12, wherein the biometric identification device comprises a fingerprint scanner”** however ‘817 teaches that biometric identification can be used to gain access in col. 5, lines 51-60.

**As to dependent claim 13, wherein the biometric identification device comprises a face recognition unit”** however ‘817 teaches that biometric identification can be used to gain access in col. 5, lines 51-60.

**As to dependent claim 14, “wherein the biometric identification device comprises a retinal scanner”** however ‘817 teaches that biometric identification can be used to gain access in col. 5, lines 51-60.

**As to dependent claim 26, “wherein allowing access comprises receiving as one of the first and second user identification a security code from a biometric identification device”** however ‘817 teaches that biometric identification can be used to gain access in col. 5, lines 51-60.

**As to dependent claim 34, “further comprising a biometric identification device, wherein at least part of the security code is generated by the biometric identification**

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**device**” however ‘817 teaches that biometric identification can be used to gain access in col. 5, lines 51-60.

9. **Claims 17-21, 24, 38, 39, and 41**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lightbody et al. U.S. Patent No. 6,000,034 (hereinafter ‘034) in view of Gristina et al. U.S. Patent No. 7,069,161 (hereinafter ‘161).

**As to dependent claim 17, “wherein the first intelligent electronic device functionality includes a billing power monitoring functionality”** is shown in ‘034 col. 2, lines 41-54;

**the following is not explicitly taught in ‘034: “and the second intelligent electronic device functionality includes a protective relay functionality”** however ‘161 teaches that the power data gathered can be used in aid of emergency situations in col. 6, lines 51-67.

It would have been obvious to one of ordinary skill in the art at the time of the invention a system for managing resource consumption with permissive signals taught in ‘034 to include a means to utilize the information gathered by intelligent electronic sensors to manage a buildings resources. One of ordinary skill in the art would have been motivated to perform such a modification to access metering information in real-time see ‘161 (col. 2, lines 41 et seq.) “here exists a need to be able to aggregate and access, in real time, though a single platform or system, a building's resource delivery and utilization structures and the information associated with these structures, and to use this information to monitor, manage and control the resource delivery and utilization structures and the resource consumption states of a building, buildings or other structure. Deregulation of the nation's resource providers further underscores this need. As deregulation continues to spread throughout North America, tariffs on electricity are likely to

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result wherein resource rates will vary hour to hour based on demand. Providing the ability to monitor and control resource consumption for a building or other structure in real time will allow building tenants and building owners/managers to manage their resource expenditures and their resource conservation efforts more efficiently. Further, centralized access to a building's resource delivery and utilization structures will allow more efficient, both in terms of costs and conservation, maintenance and usage of these structures”.

**As to dependent claim 18, “wherein the first intelligent electronic device functionality includes a protective relay functionality” is taught in ‘161 col. 6, lines 51-67.**

**As to dependent claim 19, “wherein the first intelligent electronic device functionality includes a circuit breaker control functionality” is taught in ‘161 col. 8, lines 45-67.**

**As to dependent claims 20 and 21, these claims are substantially similar to claim 17; therefore they are rejected along similar rationale.**

**As to dependent claim 24, “further comprising performing a plurality of intelligent electronic device functionalities concurrently within the intelligent electronic device, wherein the intelligent electronic device functionalities include at least two of a circuit breaker control functionality, a power quality functionality, a billing power monitoring functionality, a protective relay functionality and a sequence of events recording functionality” is taught in ‘161 col. 8, lines 45-67.**

**As to dependent claim 38, “further comprising instructions in the memory device to enable access to one of the billing power monitoring functionality and the protective relay**

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**functionality with the same interface”** is taught in ‘161 col. 6, lines 1-17 and col. 6, lines 51-67.

**As to dependent claim 39, “further comprising instructions in the memory device to concurrently perform at least one of a circuit breaker control functionality, a power quality functionality and a sequence of events recording functionality”** is taught in ‘161 col. 8, lines 45-67.

**As to dependent claim 41, “further comprising instructions in the memory device to verify a determined condition has been met prior to providing access, wherein the determined condition comprises at least one of enablement of a safety lockout mechanism, transition of a digital input and a determined time period”** is shown in ‘161 col. 8, lines 26-30.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen C Tran whose telephone number is (571) 272-3842. The examiner can normally be reached from 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Ellen Tran  
Patent Examiner  
Technology Center 2134  
12 December 2007